

Safety Data Sheet

according to UK REACH Regulation

INWASAN C1

Revision date: 16.01.2024

Product code: 20140702INWASANC1

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

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UFI: KPSS-R4EC-9TCM-VH0T

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture

Water treatment chemicals

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name:	INWATEC GmbH & Co. KG	
Street:	Römerstrasse 131 - 133	
Place:	D-50127 Bergheim	
Telephone:	+49 (0) 2271 / 995510	Telefax: +49 (0) 2271 / 9955150
E-mail:	info@inwatec.com	
Contact person:	Anwendungstechnik SDB	
Internet:	www.inwatec.com	
Responsible Department:	Abteilung: Anwendungstechnik	
	E-Mail: info@inwatec.com	

1.4. Emergency telephone number:

Germany: +49 (0) 2271/995510 Mon-Fri: 9:00 - 16:00

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Met. Corr. 1; H290
Acute Tox. 4; H312
Skin Corr. 1; H314
Eye Dam. 1; H318
Aquatic Acute 1; H400
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Hazard components for labelling

sodium hypochlorite, solution ... % Cl active
Sodium chlorite

Signal word: Danger

Pictograms:



Hazard statements

H290	May be corrosive to metals.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H410	Very toxic to aquatic life with long lasting effects.

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Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

Special labelling of certain mixtures

EUH031	Contact with acids liberates toxic gas. Read attached instructions before use.
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Additional advice on labelling

The product is classified and labelled according to EC directives or corresponding national laws.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients
3.2. Mixtures
Chemical characterization

Formulation of preparations (mixtures)

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
7681-52-9	sodium hypochlorite, solution ... % Cl active			5 - 20 %
	231-668-3	017-011-00-1	01-2119488154-34	
	Skin Corr. 1B, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H314 H318 H400 H410 EUH031			
7758-19-2	Sodium chlorite			< 10 %
	231-836-6		01-2119529240-51	
	Ox. Sol. 1, Acute Tox. 2, Acute Tox. 3, Skin Corr. 1B, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 3; H271 H310 H301 H314 H373 H400 H412			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
7681-52-9	231-668-3	sodium hypochlorite, solution ... % Cl active	5 - 20 %
		Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=1 EUH; EUH031: >= 5 - 100	
7758-19-2	231-836-6	Sodium chlorite	< 10 %
		dermal: LD50 = 134 mg/kg; oral: LD50 = 284 mg/kg	

SECTION 4: First aid measures
4.1. Description of first aid measures

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General information

Remove contaminated, saturated clothing immediately.

After inhalation

Move victim to fresh air. Instruct person to keep calm and warm.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

If product gets into the eye, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person or a person with cramps.

4.2. Most important symptoms and effects, both acute and delayed

No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Water. Foam. ABC powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Nitrogen oxides (NO_x). Hydrogen chloride (HCl). Carbon monoxide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Wear personal protection equipment.

For non-emergency personnel

No information available.

For emergency responders

No information available.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up**For containment**

No information available.

For cleaning up

No information available.

Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

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6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Handle and open container with care. Keep/Store only in original container.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

Further information on handling

No special handling instructions are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place.

Hints on joint storage

Do not store together with: Food and feedingstuffs. acid. Reducing agent. Combustible substance

Further information on storage conditions

Conditions to avoid: frost.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

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DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
7758-19-2	Sodium chlorite			
Worker DNEL, acute		dermal	systemic	0,58 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	0,41 mg/m³
Worker DNEL, long-term		inhalation	systemic	0,41 mg/m³
Consumer DNEL, acute		oral	systemic	0,029 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,029 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	0,29 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,29 mg/kg bw/day
Consumer DNEL, acute		inhalation	systemic	0,1 mg/m³
Consumer DNEL, long-term		inhalation	systemic	0,1 mg/m³

PNEC values

CAS No	Substance	
Environmental compartment	Value	
7758-19-2	Sodium chlorite	
Freshwater	650 mg/l	
Freshwater (intermittent releases)	0,0065 mg/l	
Marine water	65 mg/l	
Micro-organisms in sewage treatment plants (STP)	1 mg/l	

Additional advice on limit values

To date, no national critical limit values exist.

8.2. Exposure controls
Individual protection measures, such as personal protective equipment
Eye/face protection

Tightly sealed safety glasses.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Chemical-resistant protective gloves (EN 374), Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time to EN 374), eg. B. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinyl chloride (0.7 mm), etc. ... Because of the large variety of types, the instructions for use of the manufacturer must be observed.

Skin protection

Personal protection equipment

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	liquid
Colour:	light yellow
Odour:	pungent
Odour threshold:	No data available

	Test method
Melting point/freezing point:	- 25 °C DIN 51532
Boiling point or initial boiling point and boiling range:	ca. 100 °C EN ISO 3405
Flammability:	No data available
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value (at 20 °C):	> 11 DIN 19261
Viscosity / kinematic:	No data available
Water solubility: (at 25 °C)	miscible
Solubility in other solvents	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Vapour pressure: (at 20 °C)	14 hPa DIN 51754
Vapour pressure:	No data available
Density (at 25 °C):	ca. 1,2 g/cm³ DIN 53479
Relative density:	No data available

9.2. Other information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

acid. Reducing agents. Flammable solids

10.2. Chemical stability

May cause decomposition by long-term light influence. Thermal decomposition can lead to the escape of irritating gases and vapours. Decomposition takes place from temperatures above: 7 °C

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas.

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

Materials to avoid: Reducing agents.

10.6. Hazardous decomposition productsChlorine (Cl₂). Hydrochloric gas. Oxygen. ClO₂**SECTION 11: Toxicological information**

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11.1. Information on hazard classes as defined in GB CLP Regulation

Acute toxicity

Harmful in contact with skin.
Contact with acids liberates toxic gas.

ATEmix calculated

ATE (oral) 5796 mg/kg; ATE (dermal) 2735 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
7758-19-2	Sodium chlorite				
	oral	LD50 284 mg/kg	Ratte		
	dermal	LD50 134 mg/kg	Kaninchen		

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage. (On basis of test data)
Serious eye damage/eye irritation: Causes serious eye damage. (On basis of test data)

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Endocrine disrupting properties

No information available.

Further information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
7758-19-2	Sodium chlorite					
	Acute fish toxicity	LC50 105 mg/l	96 h	Cyprinodon variegatus		
	Acute algae toxicity	ErC50 1 mg/l	96 h	Scenedesmus capricornutum		
	Acute crustacea toxicity	EC50 <1 mg/l	48 h	Daphnia magna		

12.2. Persistence and degradability

Technically correct releases of minimal concentrations to adapted biological sewage treatment facility, will not

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disturb the biodegradability of activated sludge.

12.3. Bioaccumulative potential

Does not accumulate in organisms.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7758-19-2	Sodium chlorite	-2,7

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

Further information

Do not allow undiluted or large quantities to reach ground water, water bodies or sewage systems. Must not be allowed to enter wastewater or the receiving water without being diluted or neutralised.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains.

Dispose of contents/container to an appropriate recycling or disposal facility.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a hazardous waste incinerator facility under observation of official regulations.

DE: Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number or ID number:**

UN 3266

14.2. UN proper shipping name:

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... % Cl active; Sodium chlorite)

14.3. Transport hazard class(es):

8

14.4. Packing group:

II

Hazard label:

8

Classification code:

C5

Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

Hazard No:

80

Tunnel restriction code:

E

Inland waterways transport (ADN)**14.1. UN number or ID number:**

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14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... % Cl active; Sodium chlorite)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C5
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 3266
14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... % Cl active; Sodium chlorite)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-A, S-B
Segregation group:	18 - alkalis

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 3266
14.2. UN proper shipping name:	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... % Cl active; Sodium chlorite)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Special Provisions:	A3 A803
Limited quantity Passenger:	0.5 L
Passenger LQ:	Y840
Excepted quantity:	E2
IATA-packing instructions - Passenger:	851
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	855
IATA-max. quantity - Cargo:	30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

14.6. Special precautions for user

No information available.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

Other applicable information

Hazchem code: 2X

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

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Information according to Directive
2012/18/EU (SEVESO III):

E1 Hazardous to the Aquatic Environment

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

2 - obviously hazardous to water

Biocide registry number:

N-81100

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
sodium hypochlorite, solution ... % Cl active
Sodium chlorite

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2.

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Abbreviations and acronyms

Ox. Sol: Oxidising solids
Met. Corr: Corrosive to metals
Acute Tox: Acute toxicity
Skin Corr: Skin corrosion
Eye Dam: Eye damage
STOT RE: Specific target organ toxicity - repeated exposure
Aquatic Acute: Acute aquatic hazard
Aquatic Chronic: Chronic aquatic hazard
CLP: Classification, labelling and Packaging
REACH: Registration, Evaluation and Authorization of Chemicals
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals
UN: United Nations
CAS: Chemical Abstracts Service
DNEL: Derived No Effect Level
DMEL: Derived Minimal Effect Level
PNEC: Predicted No Effect Concentration
ATE: Acute toxicity estimate
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LL50: Lethal loading, 50%
EL50: Effect loading, 50%
EC50: Effective Concentration 50%
ErC50: Effective Concentration 50%, growth rate
NOEC: No Observed Effect Concentration
BCF: Bio-concentration factor
PBT: persistent, bioaccumulative, toxic
vPvB: very persistent, very bioaccumulative
ADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Regulations concerning the international carriage of dangerous goods by rail
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)
IMDG: International Maritime Code for Dangerous Goods
EmS: Emergency Schedules
MFAG: Medical First Aid Guide
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
MARPOL: International Convention for the Prevention of Marine Pollution from Ships
IBC: Intermediate Bulk Container
SVHC: Substance of Very High Concern

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Acute Tox. 4; H312	
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H271 May cause fire or explosion; strong oxidiser.
H290 May be corrosive to metals.

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H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)